

MINUTES OF SPECIAL MEETING
CASS COUNTY JOINT WATER RESOURCE DISTRICT
CASS COUNTY HIGHWAY DEPARTMENT
WEST FARGO, NORTH DAKOTA
DECEMBER 16, 2015

The Cass County Joint Water Resource District met on Wednesday, December 16, 2015, at 1:00 p.m. at the Cass County Highway Department, West Fargo, North Dakota.

Present were Jurgen Suhr, Maple River Water Resource District; Carol Harbeke Lewis, Secretary-Treasurer; Michelle Anderson, Administrative Assistant; Mike Opat, Jeff Brown and Josh Hassell, Engineers for the Board; Pat Downs, Moore Engineering, Inc.; Keith Weston, Natural Resources Conservation Service (NRCS); Randy Gjestvang, Red River Retention Authority and State Water Commission; Jeffrey Miller and Eric Dahl, Cass County Soil Conservation District; Pat McQueary and Patsy Crooke, Corps of Engineers (by phone); Jason Benson, Cass County Engineer; Bob Satrom, Ayr Township; Harvey Morken, Casselton Township; and Michael Faught, Empire Township resident.

Manager Suhr called the meeting to order and introductions were made.

Swan Creek Watershed Planning Team meeting

Pat Downs welcomed everyone and introduced the Swan Creek Watershed Planning Team (Team), advisory and partner agency representatives, and the consultants in attendance. Cass County Joint Water Resource District is the sponsoring local organization and will be following the NRCS planning process to develop flood risk reduction measures in the Swan Creek Watershed. Funding will be available through the Regional Conservation Partnership Program to assist with the cost of the Small Watershed Planning Process (PL-566).

Mr. Downs gave a presentation on the development of flood damage reduction in the Swan Creek Watershed. The role and goals of the Team were reviewed, along with the proposed timeline. The Team will bring a local perspective, guide the decision making process, review the comments from agencies and the public, and make a recommendation to the Water Resource District on desired outcomes and goals. Each meeting will have a specific goal. The goal for the first meeting is to understand the purpose and need for action and area problems in the Swan Creek Watershed.

The Swan Creek Watershed is located within the Maple River Water Resource District in Cass County and has experienced repetitive flooding, including 6 historic floods in the past 14 years. Numerous pictures were shown of the effects overland flooding has had on transportation in rural areas, making roads impassable at times, washing out roads and bridges, stranding homeowners, delayed planting, crop loss, field erosion and stream

bank erosion. The Absaraka, Garsteig and Embden Dams provide water storage during spring floods, but were not built to handle 50 to 100-year flood events.

The Cass County Highway Department spent a total of approximately \$10 million on road and bridge repairs from 2009 through 2011, due to flooding. A summer storm on June 20, 2013, damaged 27,000 acres and resulted in crop loss of \$5 million according to the Farm Service Agency.

Mr. Downs reviewed the 2009-2011 Cass County Bridge/Road Data maps showing specific road and bridge damage areas in the Rush River Watershed, Upper Maple River Watershed, and the Swan Creek Watershed. Legal drains and existing dams also incur damage from flood events. Specific damage areas and previous detention projects were briefly discussed. Mike Opat explained all options are open for discussion, but will be narrowed down through the process.

Bob Satrom suggested building dams at three locations on Upper Swan Creek. He believes water could be stored for a short period of time with minimal agricultural impact through a three mile area. This would also slow the flow of water to the Absaraka Dam and would help prevent overflow.

Public meetings were previously held in April and June of 2014 for property owners in the Rush River Watershed, Swan Creek Watershed, and the Upper Maple River Watershed. Property owners were encouraged to submit comments and specific information on damage areas within the watersheds. Township plat maps from landowners were distributed showing specific damage areas for Ayr, Buffalo, Casselton, Durbin, Empire, Everest and Wheatland Townships. Gill and Rich Townships have not incurred damage. Mr. Downs reviewed the major problems reported from the public meetings: overland flooding, road washouts / overtopping, Maple River breakouts, bridge washouts / damages, washed out culverts, field erosion, delayed planting, crop losses, communities downstream, stranded homeowners, transportation disruption, stream bank erosion, and legal drain damages. Water quality, wildlife and other considerations were briefly discussed. The NRCS has resource concerns, which were listed on a handout given to the Team.

A meeting was held on December 10, 2015, in Bismarck, North Dakota, with various agencies. The agencies expressed interest in potential impacts to waters of the United States, permitting guidelines and impaired waters under the Clean Water Act. Mr. Downs explained as potential solutions are narrowed down, the agencies may address specific concerns on specific areas within the watersheds.

Public meetings will be held at the Governors' Inn in Casselton, North Dakota, on January 6, 2016, for property owners in the Rush River Watershed, Upper Maple River Watershed and Swan Creek Watershed. A *Public Comment Form* will be distributed for property owners and communities to rank concerns and list watershed goals.

Discussion was held on the augmentation of stream flow, lack of water in the summer and a possible fishery as an alternative. Crop irrigation is another potential alternative to use surplus water stored on land.

The first step in the planning process is to establish a purpose and need for watershed planning solutions within the Swan Creek Watershed. The purpose and need statement will be adopted by the Team at its next meeting on January 27, 2016. A draft of the Swan Creek Watershed purpose and need statement was presented and used as a reference for discussion. Keith Weston made a suggestion to use the 'why' technique to narrow down the purpose and need. Mr. Satrom stated overland and overbank flooding occurs nearly every year on the Swan Creek. He would like to add language to make sure the specific areas of damage are included on all tributaries to the Swan Creek.

Discussion was held on overland flooding from rain events and spring runoff, the topography of the land, culvert sizing, field practices, drain tile, cover crop and the soil profile. Mr. Weston stated there may be smaller subwatershed drainage issues within the watershed that need to be part of the overall flood retention solution.

Mr. Satrom said road elevations need to be addressed. Township roads are lower and wider now than when they were built. Over the years, the road elevations have dropped and they are not always brought back to the original elevation after a flood event. He stated the size of culverts also contribute to the problem.

Discussion was held on the benefit to property owners. Mr. Downs and Mr. Opat explained the assessment process, easements and property purchases for the construction of potential watershed projects. The goal of the watershed is to utilize allocated federal, state and local funds to bring increased benefits to agricultural producers, safety and health for communities and the surrounding ecosystem. Mr. Morken stated the benefit to property owners should be made clear.

Recreation and wildlife were briefly discussed. Jeffrey Miller and Eric Dahl said the Team should consider the use of the land after the water has drained. Culvert sizes can alter how long water is stored on land. Storing water can lead to deficient soil nutrients and prevent establishment of vegetation. They suggested property owners think of ways to minimize weeds and prevent loss of nutrients from the soil. Operation and maintenance of flood control structures will also affect property owners. An operating plan may need to be developed.

Goals and objectives were discussed and identified for the purpose and need statement. Important goals frequently discussed during the meeting included:

- Reducing flood impacts to roads, bridges, and culverts;
- Reducing agricultural crop losses, field erosion, and delayed planting;
- The ability to implement, manage and accomplish a project;
- Improving infiltration rates on land; and
- Reducing the 100-year flood impact.

A request was made to review modeling results to determine whether there is a measurable difference resulting from water retention on the Upper Swan Creek. Discussion was held on funding available for mitigation to township roads in the Swan Creek Watershed.

Mr. Morken stated property owners may not support watershed planning solutions unless they have experienced crop losses.

Mr. Downs and Mr. Opat thanked everyone for participating in the first Team meeting and explained more property owners can be added to the Team in the future, when alternatives are considered. Comments submitted by the public on January 6, 2016, may reinforce the issues or bring new issues for the Team to consider. Before the next meeting, Mr. Downs asked the Team to continue investigating and researching specific needs and purposes within the Swan Creek Watershed.

At the next meeting, the Team will look at alternatives or options to solve the adopted purpose and need for flood damage reduction measures. A range of alternatives will be drafted for initial review and compared to find the most viable option for action. Comments from the December 10, 2015, agency meeting and the January 6, 2016, public meeting will also be reviewed.

Adjournment

There being no further business to be considered by the Board, the meeting adjourned without objection.

APPROVED:

Mark Brodshaug
Chairman

ATTEST:

Carol Harbeke Lewis
Secretary-Treasurer